Study reveals how mechanical forces drive skeletal development

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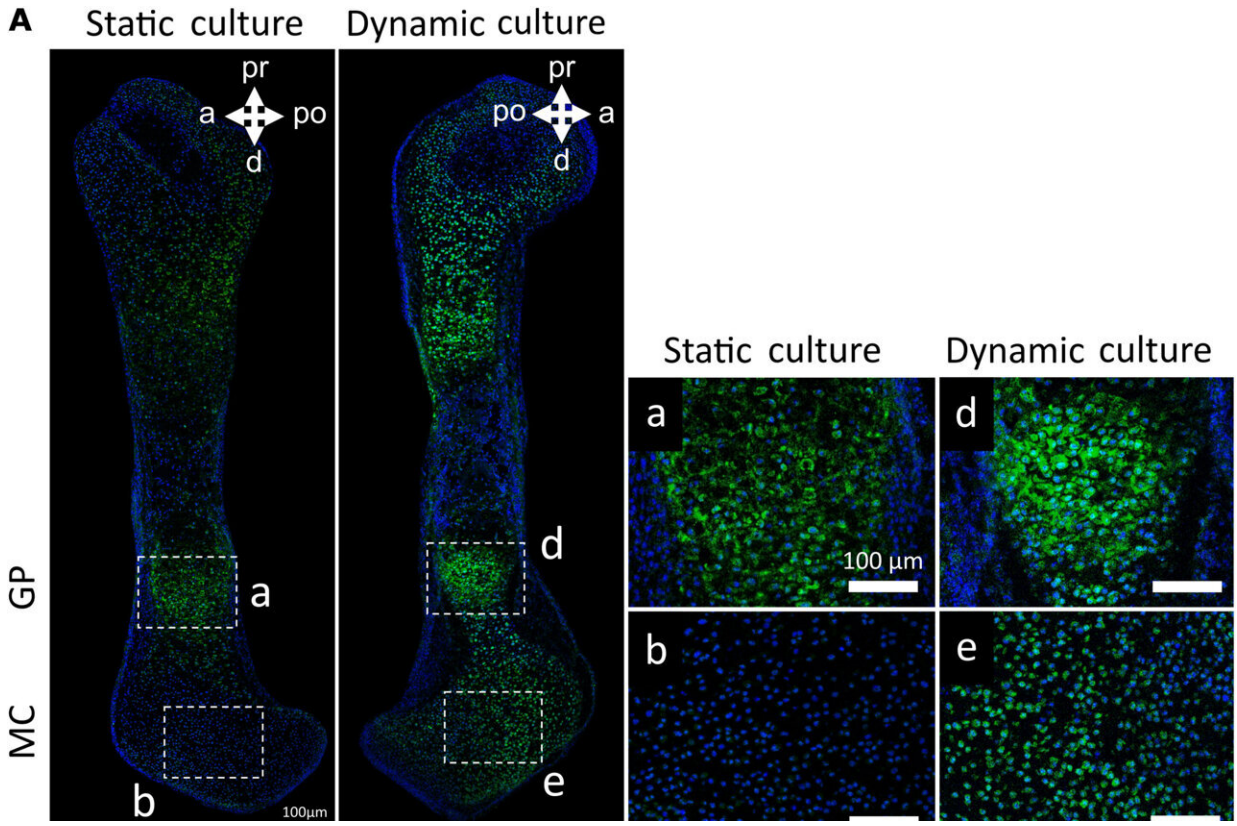

TRPV4 protein expression is mechanically regulated in developing joint cartilage. (A) Immunofluorescence staining of the TRPV4 protein in the growth plate (GP; a and d), medial condyles (b and e), and lateral condyles (c and f) of femora subjected to static and dynamic culture conditions (n = 3 limbs per group). Blue, 4′,6-diamidino-2-phenylindole (DAPI); green, TRPV4. Scale bars, 100 μm. (B) Quantification of pooled cell TRPV4 protein immunofluorescence intensity within the growth plate, medial condyle, and lateral condyle. * indicates a significant difference between groups (P